



XR LAB META QUEST 3 USER GUIDE



**Enhancing Practices and Strengthening Core Competencies
In Disaster Nursing through the Learning HUB (ECoDN-HUB)**

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1. Purpose and Scope

This protocol has been prepared to ensure the safe, hygienic, and standardized use of Meta Quest 3 headsets and controllers in XR (Extended Reality) laboratories. The protocol covers educational, research, and simulation activities conducted by students, researchers, instructors, and laboratory personnel. The document aims to support device security, user safety, and data integrity in multi-user environments.

2. Pre-Use Preparation

2.1 Logging into the Computer

Before use, log into the computer connected to the XR system using the assigned user account. This step ensures that required software and user-specific settings are activated. Verify that necessary software, drivers, and authorizations are active. Once login is completed, headset setup is initiated.



Figure 1. XR computer login screen

2.2 Starting the Headset

Before powering on the headset, its physical condition should be inspected. Press and hold the power button for several seconds to turn on the device. Once started, the main interface loads automatically.

Confirm that the headset fits properly and that the visual display is clear.



Figure 2. Headset power button location

2.3 Description of Hand Controllers

Hand controllers enable interaction with objects in the virtual environment. Triggers, joysticks, and buttons are used for actions such as selecting, moving, rotating, and accessing menus.

Proper grip and hand movement are important for accurate motion tracking.



Figure 3. Controller buttons and joystick layout.

3. Safety Precautions

- The usage area must be free of physical obstacles.
- The Guardian (boundary) system must be enabled.
- Use must be stopped immediately if dizziness, nausea, or visual discomfort occurs.
- Regular breaks should be taken during extended use.
- Users wearing glasses should verify appropriate headset adjustments.
- Controller wrist straps must be worn during use.
- Adequate room lighting must be ensured.

4. 4. System Settings

4.1 Boundary Configuration

A virtual usage area is defined to ensure user safety. Through the Guardian system, a safe movement zone is established in the physical environment. The system provides visual warnings when the user moves outside this area.



Figure 4. Guardian boundary setup screen.

4.2 Brightness Adjustment

Screen brightness is adjusted according to ambient lighting and user comfort. Proper brightness levels reduce eye strain and enhance image quality. Adjustments are made through the settings menu.



Figure 5. Brightness settings menu

5. 5. Application Use

5.1 Launching Applications and Main Menu Access

Applications are launched by selecting them from the main menu. The menu button allows returning to the main interface from within an application. During this process, the application may be paused or closed.



Figure 6. Main menu and mobile application interface

5.2 Casting

The headset display can be streamed to a computer or external screen. This feature is used for teaching, presentations, or observation purposes. Casting is enabled through the settings menu.



Figure 7. Casting screen